

IN THE CLAIMS:

Please amend claims 16, 17 and 25 as indicated in the following.

Please cancel claims 1-12 without prejudice as indicated in the following.

Please add claims 30-51 as indicated in the following.

Claims Listing:

1. – 12. (Canceled)
13. (Original) An integrated single chip system comprising:
 - a first processor to receive digital video data and provide parsed video data;
 - a second processor coupled to the first processor to access the parsed video data, the second processor including a video transcoder.
14. (Original) The system of claim 13, wherein the first processor is a general purpose processor.
15. (Original) The system of claim 14, wherein the second processor further includes:
 - a data decompression portion;
 - a scalar; and
 - a data compression portion.
16. (Currently Amended) The system of claim 15, wherein the decompression portion includes a portion to perform a frequency domain to [[a]]time domain transform.
17. (Currently Amended) The system of claim 16, wherein the frequency domain to time domain transform portion is a portion to ~~performs~~perform an inverse discrete cosine transform portion.

18. (Original) The system of claim 16, wherein the decompression portion includes a portion to perform a de-quantization of data.
19. (Original) The system of claim 16, wherein the decompression portion includes a portion to perform a DeZigZag of data.
20. (Original) The system of claim 19, wherein the decompression portion includes a motion compensation portion.
21. (Original) The system of claim 16, wherein the decompression portion includes a motion compensation portion.
22. (Original) The system of claim 15, wherein the decompression portion includes a motion compensation portion.
23. (Original) The system of claim 22, wherein the compression portion includes a motion vector generator.
24. (Original) The system of claim 23, wherein the motion vector generator includes a buffered motion predictor.
25. (Currently Amended) The system of claim 24, wherein the compression portion further includes a portion to perform a time domain to [[a]]frequency domain transform.
26. (Original) The system of claim 25, wherein the time domain to frequency domain transform portion includes a discrete cosine transform portion.
27. (Original) The system of claim 15, wherein the compression portion includes a motion vector generator.
28. (Original) The system of claim 25, wherein the motion vector generator includes a buffered motion predictor.

29. (Original) The system of claim 13, wherein the second processor is coupled to the first processor through a memory controller and a sequencer.

30. (New) A method comprising:

receiving one or more packets having a video data payload and information related to the video data payload, wherein the video data payloads of the one or more packets represent a first channel of compressed video data having a characteristic represented by a first value; and
transcoding the video data payloads of the one or more packets to generate a representation of a second channel of compressed video data having the characteristic represented by a second value.

31. (New) The method of claim 30, wherein the characteristic is a compression factor.

32. (New) The method of claim 30, wherein the characteristic is a scale factor.

33. (New) The method of claim 32, wherein transcoding the video data payloads comprises:

decompressing the video data payloads to generate a first intermediate data;
scaling the first intermediate data to generate a second intermediate data; and
compressing the second intermediate data to generate the representation of the second channel.

33. (New) The method of claim 30, wherein transcoding the video data payloads comprises:

decompressing the video data payloads to generate a first intermediate data, wherein the first intermediate data is frequency domain data;
converting the first intermediate data to a second intermediate data, wherein the second intermediate data is time domain data having the characteristic represented by the first value;
converting the second intermediate data to a third intermediate data having the characteristic represented by the second value; and
compressing the third intermediate data to generate the representation of the second channel.

34. (New) The method of claim 30, wherein receiving the one or more packets includes:
storing the video data payloads of the one or more packets in a first memory; and
storing the information associated with the video data payloads in a second memory.
35. (New) The method of claim 34, wherein the first memory and the second memory comprise a same memory.
36. (New) The method of claim 30, wherein the video data payloads are transcoded based at least in part on the information associated with the video data payloads.
37. (New) The method of claim 36, wherein the information associated with a video data payload indicates that the digital data payload includes one or more of video time stamp information, picture configuration information, slice information, macroblock information, motion vector information, quantizer matrix information, or specific picture location information.
38. (New) The method of claim 30, wherein receiving the one or more packets and transcoding the video data payloads support a real-time play back of the representation of the second channel.
39. (New) The method of claim 30, further comprising:
providing the representation of the second channel of compressed video data for reception by at least one multimedia device.
40. (New) The method of claim 30, further comprising:
receiving, at a first data processor, a data stream including video data at a first data processor; and
parsing, at the first data processor, the data stream to identify video data associated with a first channel; and
packetizing, at the first data processor, the video data associated with the first channel to generate the one or more packets.

41. (New) The method of claim 40, wherein receiving the one or more packets and transcoding the video data payloads are performed at a second data processor.

42. (New) The method of claim 41, wherein the first data processor includes a general purpose processor and the second data processor includes a video processor.

43. (New) A system comprising:

a first data processor to:

receive one or more packets having a video data payload and information related to the video data payload, wherein the video data payloads of the one or more packets represent a first channel of compressed video data having a characteristic represented by a first value; and

transcode the video data payloads of the one or more packets to generate a representation of a second channel of compressed video data having the characteristic represented by a second value.

44. (New) The system of claim 43, wherein the characteristic is a compression factor.

45. (New) The system of claim 43, wherein the characteristic is a scale factor.

46. (New) The system of claim 43, wherein the first data processor is further to:

decompress the video data payloads to generate a first intermediate data;

scale the first intermediate data to generate a second intermediate data; and

compress the second intermediate data to generate the representation of the second channel.

47. (New) The system of claim 43, wherein the first processor is further to:
- decompress the video data payloads to generate a first intermediate data, wherein the first intermediate data is frequency domain data;
 - convert the first intermediate data to a second intermediate data, wherein the second intermediate data is time domain data having the characteristic represented by the first value;
 - convert the second intermediate data to a third intermediate data having the characteristic represented by the second value; and
 - compress the third intermediate data to generate the representation of the second channel.
48. (New) The system of claim 43, wherein the first processor transcodes the video data payloads based at least in part on the information associated with the video data payloads.
49. (New) The system of claim 48, wherein the information associated with a video data payload indicates that the digital data payload includes one or more of video time stamp information, picture configuration information, slice information, macroblock information, motion vector information, quantizer matrix information, or specific picture location information.
50. (New) The system of claim 43, further comprising a second data processor operably coupled to the first data processor, the second data processor to:
- receive a data stream including video data at a first data processor;
 - parse the data stream to identify video data associated with a first channel;
 - packetize the video data associated with the first channel to generate the one or more packets; and
 - provide the one or more packets for reception by the first processor.
51. (New) The system of claim 50, wherein the first data processor comprises a video processor and the second data processor comprises a general purpose processor.